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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,323	02/15/2001	Kenichi Sawada	325772022400	3172

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EXAMINER

BURLESON, MICHAEL L

ART UNIT PAPER NUMBER

2626

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/783,323

Applicant(s)

SAWADA ET AL.

Examiner

Michael Burleson

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-9 is/are allowed.
- 6) ☒ Claim(s) 1-3,5 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Response to Arguments

Response to Arguments

1. Applicant's arguments filed 11/01/2004 have been fully considered but they are not persuasive. Applicant states that the reference of Yamamoto et al (US 6381428) does not disclose "an input device for inputting distortion data of exposing unit". Yamamoto et al. teaches of an image sensor (11), which reads on an inputting device for inputting distortion data. Applicant also recites that Yamamoto et al. does not teach of distortion correction. Yamamoto et al. teaches that the image sensor (11) detects the misregistration of images, which is then corrected by the image compensation unit. By definition, distortion is a change in the shape of an image resulting from imperfections in an optical system (American Heritage College Dictionary 4th edition). By definition, the misregistration of images can be considered a distortion of the image, which is corrected by the image compensation unit. For these reasons, the rejection of claims 1-3 and 5 in view of Yamamoto et al. (US 6381428) is maintained.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamamoto et al. US 6381428.

1. Regarding claim 1, Yamamoto et al. teaches of exposure devices of the LED array (32) (column 20, lines 40-45), which reads on an image forming apparatus comprising an exposure unit which exposes an image carrier by emitting light of light emitting elements based on image data. He teaches of an image sensor (11) that detects the misregistration of images, which is used to ensure accurate layout positions of exposure devices (4a,4b,4c,4d) (column 7, lines 54-67 and column 8, lines 1-36 and column 9, lines 1-15), which reads on an input device for inputting distortion data of the exposure unit. He also teaches of an image compensation unit that compensates for each image based on the output of the image sensor (11) and misregistration calculation unit (column 8, lines 15-30). The image compensation unit adjusts the x and y coordinates for the write position of the image to be printed (column 9, lines 16-22). This reads on a controller, which controls an exposure position of an image to be exposed by the exposure unit, based on the input distortion data.

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2. Regarding claim 2, Yamamoto et al. teaches that the LED arrays (32) are arranged in a line (column 20, lines 51-53), which reads on the exposure unit includes a plurality of the light emitting elements that are arranged in a line.

3. Regarding claim 3, Yamamoto et al. teaches that the LEDs emit light independently and provide high speed operation (column 20, lines 48-51), which reads on data corresponding to each of the light emitting elements are input.

4. Regarding claim 5, Yamamoto et al. teaches that the image sensor (11) detects the position of four color images (column 8, lines 18-22) and that misregistration of toner images are classified as parallel misregistration of images, displacement of image angle and extension and contraction of images (column 8, lines 61-67), which reads on the input device is equipped with plural kinds of input methods.

Allowable Subject Matter


5. Claims 6-9 are allowed.

1. Regarding claim 6, the closest references Yamamoto et al. US 6381428 fails to teach of a data processor which forms skew correction data based on a relative deviation amount in main and sub scanning directions of the exposure unit, that is obtained by a readout of the resist patterns by the optical sensors.

2. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication should be directed to Michael Burleson whose telephone number is (571) 272-7460 and fax number is (571) 273-7460. The examiner can normally be reached Monday thru Friday from 8:00 a.m. – 4:30p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached at (571) 272-7471


KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER

Michael Burleson
Patent Examiner
Art Unit 2626



Mlb
May 12, 2005